

ENVIRONMENTAL PROTECTION AGENCY REGION 1
PRELIMINARY ASSESSMENT DECISION RECORD

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
MA	D981068802

II. SITE NAME AND LOCATION	
01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
St. Peters Field	Sherman St
03 CITY	04 STATE 05 ZIP CODE
Cambridge	MA 02134



SEMS DocID 635553

DRAFT PA: completed by ☒ FIT (FI-.....)

☐ State

☐ EPA

☐

REVIEWED ☐ Site Name
☐ Site ID No.
☐ Existing File

BY

DRAFT PRIORITY ASSESSMENT/RECOMMENDATION FOR SITE INSPECTION
☐ High ☐ Medium ☒ Low ☐ None

SUMMARY OF COMMENTS ON DRAFT

a. STATE comments, dated, by

Summary

b. SITE OWNER comments, dated, by

Summary

c. EPA REGION 1 comments, dated, by

Summary

d. comments, dated, by

Summary

FINAL PA DECISION BY EPA PA COORDINATOR:

a. ☒ agree with draft.

b. ☐ Revised draft. Reason

c. Final Priority Assessment/Recommendation for Site Inspection

☐ High ☐ Medium ☒ Low ☐ None

d. Final decision made by Susan C. Swirsky Date 9/30/85

CERCLIS: Start Date; Compl. Date; Entry Date; By

**NUS CORPORATION
SUPERFUND DIVISION**

INTERNAL CORRESPONDENCE

C-583-1-6-79

TO: DON SMITH/EPA

DATE: JANUARY 22, 1986

FROM: HERBERT W. COLBY *hwc*

COPIES: FILE

**SUBJECT: PRELIMINARY ASSESSMENT OF ST. PETERS FIELD,
CAMBRIDGE, MASSACHUSETTS
TDD No. FI-8504-12
Reference No. \$300MA38PA**

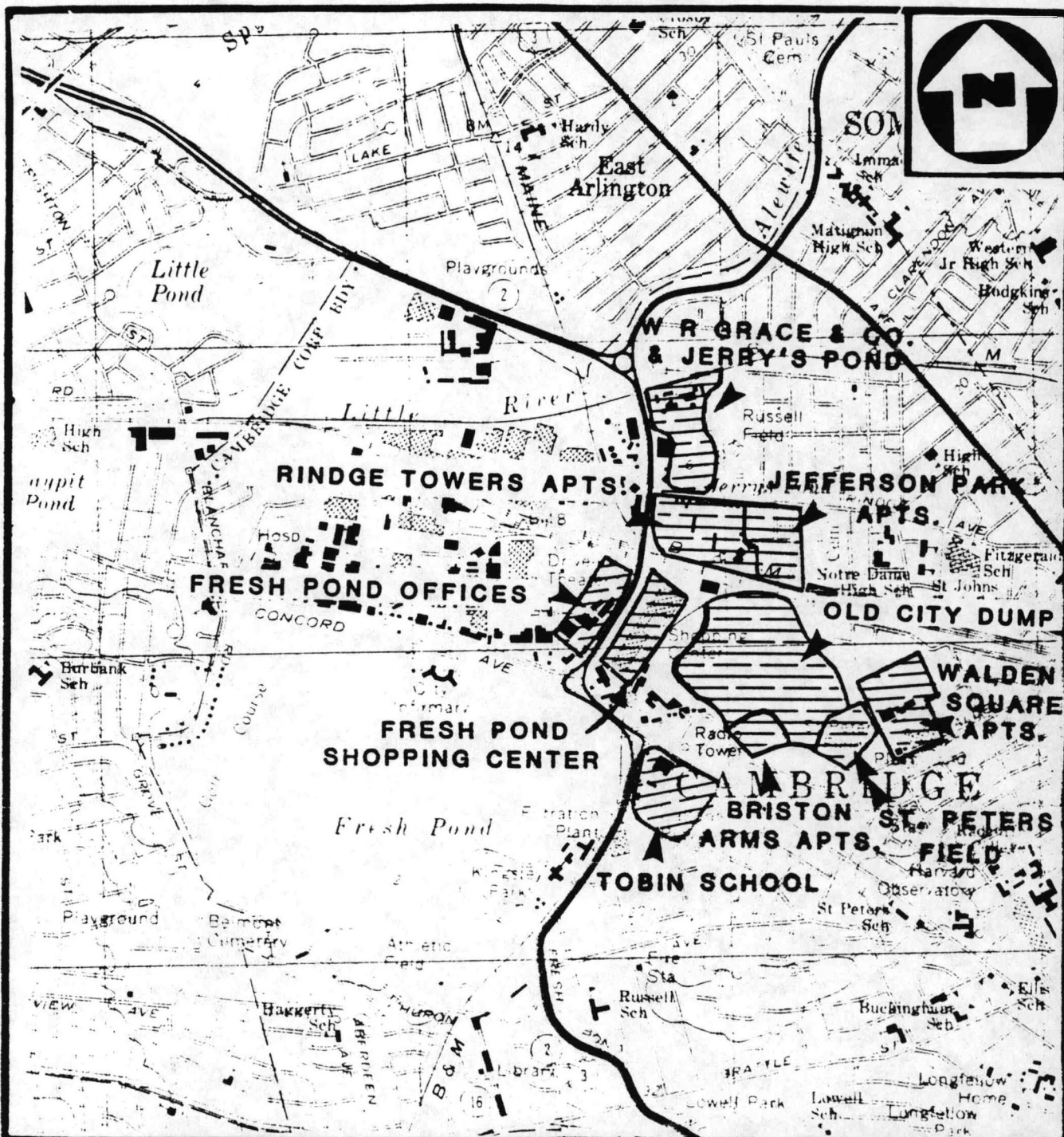
The NUS Field Investigation Team (NUS/FIT) was tasked by Region I U.S. Environmental Protection Agency (EPA) Superfund Branch to perform a preliminary assessment of the St. Peter's Field on Sherman Street, Cambridge, Massachusetts, under Technical Directive Document (TDD) FI-8504-12 (Appendix A). This letter report fulfills the requirements of the task.

The documents prepared within comply with requirements set forth under EPA Superfund Legislation, (CERCLA), however, they do not necessarily fulfill the requirements of other EPA regulations such as RCRA.

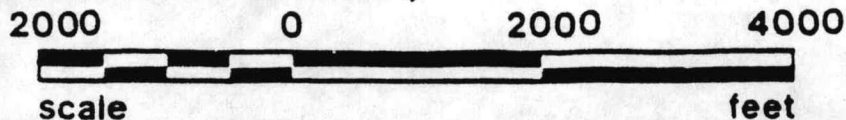
The St. Peter's Field site is located on Sherman Street, Cambridge, Massachusetts (Figure 1). The approximately 4.5 acre site is bordered on the southwest by Garden Street and private residences, on the southeast by Walden Street, on the northeast by Sherman Street and on the northwest by the Old City Dump (New Street Landfill). The North Cambridge/Fresh Pond area near the site is heavily populated with single and multiple family dwellings, and high-rise and garden apartments. There are also numerous shopping centers, research offices and industries in the area. The nearest surface water to the site is Fresh Pond, 2,000 feet to southwest, which supplies water to approximately 102,000 residents of Cambridge, including those adjacent to the site. The Alewife Brook, located 4,000 feet to the north-northwest, provides recreational fishing for local residences and supports an annual herring spawning run (5,6).

The site is covered by vegetated baseball and recreational fields, and a number of asphalt basketball courts. A fence separates the site from the New Street Landfill.

The St. Peter's Field site overlies a former clay extraction pit, originally developed about 1845. Clay was mined intermittently from the site until shortly after 1900 (2). Little information is available regarding use of the site during the next 35 years. Aerial photographs, taken in 1938, show the surface of the site to be disturbed, but not under excavation. Aerial photographs of 1952 reveal the presence of at least one baseball field, and an increase in vegetative cover (8). The site remains in use as a recreational area.



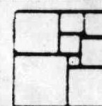
BASE MAP IS A PORTION OF THE U.S.G.S. LEXINGTON MA
QUADRANGLE [7.5'SERIES, 1971]



LOCUS PLAN

CAMBRIDGE CLAY PITS SITES CAMBRIDGE MA

AUGUST 1985



NUS

CORPORATION



A Halliburton Company

FIGURE 1

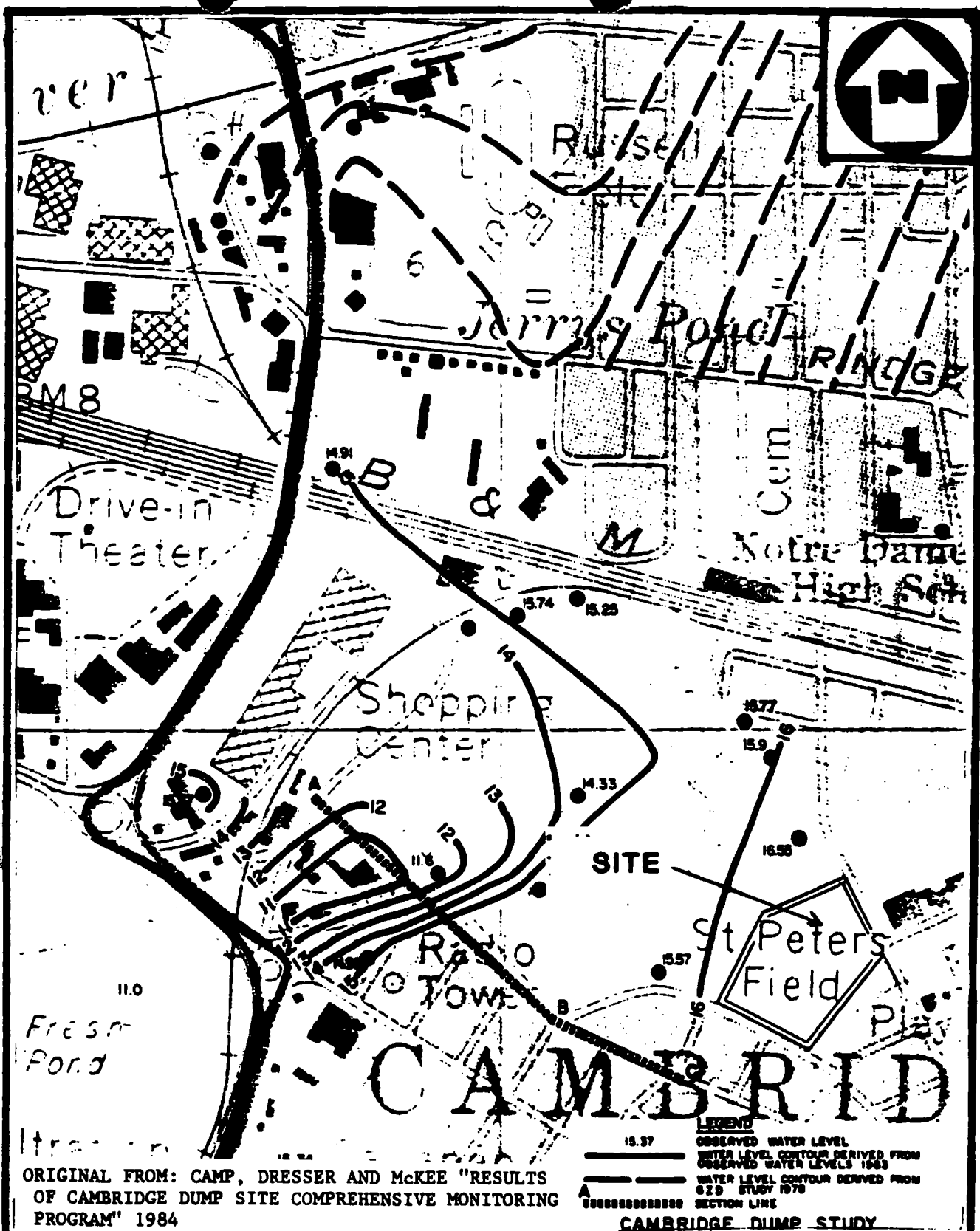
MEMO TO: DON SMITH
JANUARY 22, 1986-PAGE TWO

There is concern that hazardous materials may have been disposed on the site during the filling of possible clay excavation pits. Historic and photographic evidence suggests that filling would most likely have occurred between 1903 and 1938. North Cambridge contained a number of chemical, battery, and manufacturing companies which may have utilized the site as a convenient area to dispose of their wastes.

There are a number of concerns with regard to possible contaminants present on the site. First, refuse in the New Street Landfill is producing and releasing methane. In the past, concern was expressed that methane may migrate off the landfill site underground and present a fire or explosion hazard. According to a recent Haley and Aldrich report, the installation of a stone-filled trench between the landfill and St. Peter's Field has reduced the potential for such migration (7). Secondly, if hazardous wastes are present beneath the site, the principal exposure routes would most likely be via groundwater contamination, direct contact and by the migration of vapors into the local apartments.

The possibility of direct contact with hazardous wastes appears remote as much of the site is either paved (for basketball courts) or well vegetated. Information as to whether ambient air in local basements has been monitored was not available.

The contamination of groundwater due to the presence of potentially hazardous materials at the site is a possibility. Recent hydrogeologic studies of the area indicate that the water table is approximately one to five feet below the ground surface. It is likely that clay pits were excavated to or below this depth, and so wastes, if disposed of in the clay pits, would be in contact with the groundwater. Local groundwater flow appears to be either towards Fresh Pond or the New Street Pump Station, located 1,800 feet to the west. The pump station extracts groundwater and discharges it into the Metropolitan District Commission sewer system. This has the effect of locally depressing the water table and may help intercept an undetermined percentage of groundwater leaving the site. A recent hydrogeologic study of the Old City Dump indicated that with the pump station operating properly and with the surface of Fresh Pond maintained above a minimum elevation, groundwater migration from the St. Peter's Field site to Fresh Pond should be minimal (4). Figures 2 and 3 indicate local groundwater table conditions with the surface of Fresh Pond at two different elevations above mean sea level.



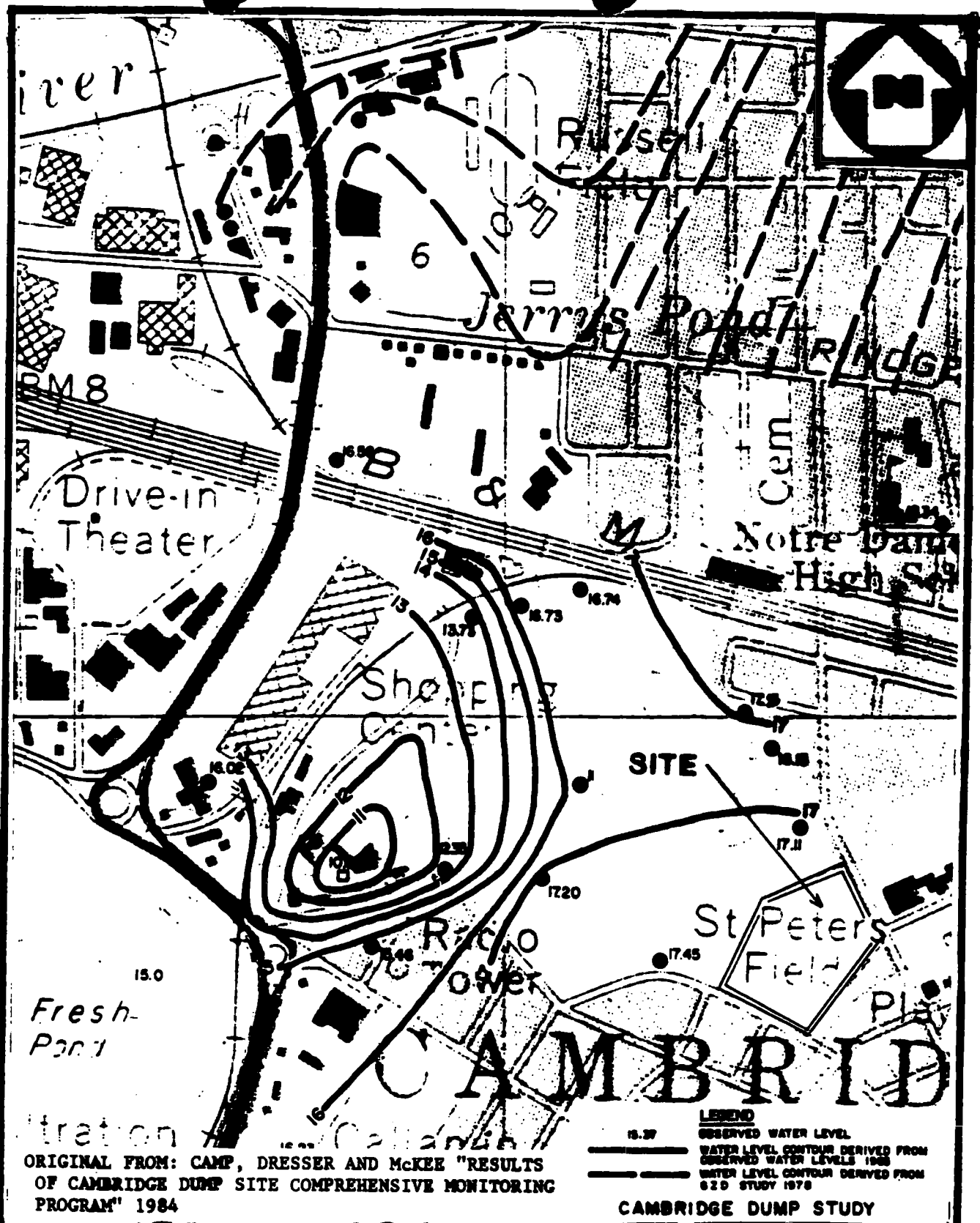
CAMBRIDGE CLAY PITS

ST. PETER'S FIELD

DECEMBER 1985

NUS
CORPORATION
A Halliburton Company

FIGURE 2



CAMBRIDGE CLAY PITS
ST. PETER'S FIELD

DECEMBER 1985

NUS
 CORPORATION
 A Halliburton Company

FIGURE 3

C-583-1-6-79

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NUS/FIT recommends that no further study of the site is required. It is suggested, however, that consideration should be made to include the site as part of any further studies performed on the New Street Landfill.

HWC/mth

cc: R. DiNitto
J. Morin
T. Plant
M. Mengel
T. Centi/ZPMO

Reviewed and approved by:


R. DiNitto, RPM

Date:

1/22/86

REFERENCES

1. United States Geological Survey, Lexington, Mass. Quadrangle (7.5' series, topographic map 1971).
2. Cambridge Historical Commission, "Survey of Architectural History in Cambridge, Northwest Cambridge", 1977.
3. Halberg, H.N. and Roberts, C.M., "Recovery of Groundwater Supplies by Pumping from Watertable Ponds", Transactions American Geophysical Union, Volume 30, Number 2, April, 1949.
4. Camp, Dresser and McKee, Boston, MA., "Results of Cambridge Dump Site Comprehensive Monitoring Program" 1984.
5. Walter Hoyt, Massachusetts Fisheries Wildlife and Recreational Vehicle Division, in telecon with Herb Colby, NUS/FIT, June 19, 1985. Telecon #15, NUS/FIT Project File.
6. Joseph DiCarlo, Massachusetts Fisheries, Wildlife and Recreational Vehicle Division, in telecon with Herb Colby, NUS/FIT. August 29, 1985. Telecon #26, NUS/FIT Project File.
7. Haley and Aldrich, Inc., for Camp, Dresser and McKee, "Gas Monitoring Program at New Street Landfill, Cambridge ", 1983.
- 8) United States Environmental Protection Agency, Environmental Photographic Interpretation Center, Historical Analysis Alewife Brook Area, Cambridge, MA, TS PIC 1020 July 1981.

APPENDIX A



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION	
01 STATE MA	02 SITE NUMBER MAD981068802

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site) St. Peter's Field		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER Sherman Street			
03 CITY Cambridge	04 STATE MA	05 ZIP CODE 02138	06 COUNTY Middlesex	07 COUNTY CODE 017	08 CONG DIST 08
09 COORDINATES LATITUDE 42° 23' 12.6"		LONGITUDE 071° 07' 59"			

DIRECTIONS TO SITE: From Alewife Brook Parkway traffic circle, go south on Alewife Brook Parkway for 1400 feet. Take left onto Rindge Avenue. Take right onto Sherman Street after 0.4 miles. Go 0.43 miles south. St. Peter's Field is on right.

III. RESPONSIBLE PARTIES

01 OWNER (If known) City of Cambridge		02 STREET (Business, mailing, residential) 795 Massachusetts Avenue			
03 CITY Cambridge	04 STATE MA	05 ZIP CODE 02138	06 TELEPHONE NUMBER 617-498-9094		
07 OPERATOR (If known and different from owner) City of Cambridge, Dept. of Parks and Forests		08 STREET (Business, mailing, residential) 79 Sydney Street			
09 CITY Cambridge	10 STATE MA	11 ZIP CODE 02139	12 TELEPHONE NUMBER 617-498-8000		
13 TYPE OF OWNERSHIP (Check one): <input type="checkbox"/> A. PRIVATE <input type="checkbox"/> B. FEDERAL: _____ (Agency name) <input type="checkbox"/> C. STATE <input type="checkbox"/> D. COUNTY <input checked="" type="checkbox"/> E. MUNICIPAL <input type="checkbox"/> F. OTHER: _____ (Specify) <input type="checkbox"/> G. UNKNOWN					

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply) <input type="checkbox"/> A. RCRA 3001 DATE RECEIVED: _____ MONTH DAY YEAR <input type="checkbox"/> B. UNCONTROLLED WASTE SITE (CERCLA 101(c)) DATE RECEIVED: _____ MONTH DAY YEAR <input checked="" type="checkbox"/> C. NONE	
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IV. CHARACTERIZATION OF POTENTIAL HAZARD

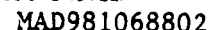
01 ON SITE INSPECTION <input type="checkbox"/> YES DATE _____ MONTH DAY YEAR <input checked="" type="checkbox"/> NO		BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify) CONTRACTOR NAME(S): _____			
02 SITE STATUS (Check one) <input type="checkbox"/> A. ACTIVE <input checked="" type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN		03 YEARS OF OPERATION BEGINNING YEAR _____ ENDING YEAR _____ <input checked="" type="checkbox"/> UNKNOWN			
04 DESCRIPTION OF CIRCUMSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED St. Peter's Field is located over a former clay pit, which ceased operation sometime around 1900. Local citizens are concerned the pit may have been filled with hazardous materials generated by local industries. Photographic evidence indicates the site has been used as a recreational field since before 1952. Contaminants present on and in the adjacent Old City Dump could migrate onto the site.					
05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION If hazardous materials are present under the site, groundwater contamination could occur. Contaminated groundwater may migrate to Fresh Pond Reservoir, water source for 95,000 - 102,000 citizens of Cambridge.					

V. PRIORITY ASSESSMENT

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents) <input type="checkbox"/> A. HIGH (Inspection required promptly) <input type="checkbox"/> B. MEDIUM (Inspection required) <input type="checkbox"/> C. LOW (Inspect on time available basis) <input checked="" type="checkbox"/> D. NONE (No further action needed, complete current disposition form)			
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VI. INFORMATION AVAILABLE FROM

01 CONTACT Susan Svirsky		02 OF (Agency/ Organization) EPA, Region I		03 TELEPHONE NUMBER (617) 223-0808	
04 PERSON RESPONSIBLE FOR ASSESSMENT Herb Colby		05 AGENCY FIT	06 ORGANIZATION NUS	07 TELEPHONE NUMBER 617-275-2970	08 DATE 1 21 86 MONTH DAY YEAR



<input type="checkbox"/> A. TOXIC	<input type="checkbox"/> E SOLUBLE	<input type="checkbox"/> I HIGHLY VOLATILE
<input type="checkbox"/> B CORROSIVE	<input type="checkbox"/> F INFECTIOUS	<input type="checkbox"/> J EXPLOSIVE
<input type="checkbox"/> C RADIOACTIVE	<input type="checkbox"/> G FLAMMABLE	<input type="checkbox"/> K REACTIVE
<input type="checkbox"/> D PERSISTENT	<input type="checkbox"/> H IGNITABLE	<input type="checkbox"/> L INCOMPATIBLE
		<input type="checkbox"/> M NOT APPLICABLE

EPA FORM 2070-12 (7-81)



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE MA 02 SITE NUMBER MAD981068802

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 102,000

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

If hazardous materials are present under the site, groundwater contamination could occur. Contaminated groundwater may migrate to Fresh Pond Reservoir, water source for 95,000 - 102,000 citizens of Cambridge.

01 ☐ B. SURFACE WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ C. CONTAMINATION OF AIR

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☐ E. DIRECT CONTACT

03 POPULATION POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☒ F. CONTAMINATION OF SOIL

03 AREA POTENTIALLY AFFECTED: 8.0
(Acres)

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

If hazardous wastes were used to fill the area, the underlying soil may be contaminated.

01 ☒ G. DRINKING WATER CONTAMINATION

03 POPULATION POTENTIALLY AFFECTED: 102,000

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

Groundwater beneath the site may under certain hydrogeologic conditions, flow to Fresh Pond, water supply to approximately 102,000 residences of Cambridge.

01 ☐ H. WORKER EXPOSURE/INJURY

03 WORKERS POTENTIALLY AFFECTED: _____

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

01 ☒ I. POPULATION EXPOSURE/INJURY

03 POPULATION POTENTIALLY AFFECTED: 102,000

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL ☐ ALLEGED

04 NARRATIVE DESCRIPTION

The principal route for population exposure would be by migration of contaminated groundwater to Fresh Pond Reservoir.



POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE MA 02 SITE NUMBER MAD981068802

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ K. DAMAGE TO FAUNA
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ L. CONTAMINATION OF FOOD CHAIN
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☐ M. UNSTABLE CONTAINMENT OF WASTES
(Solids/runoff/standing liquids/leaking drums)

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: _____

04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☒ POTENTIAL

☐ ALLEGED

Potentially contaminated groundwater will generally flow towards the New Street Pump Station, 0.4 miles to the west, to be discharged into the Metropolitan District Commission Sewer System.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: _____)

☐ POTENTIAL

☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 102,000

IV. COMMENTS

Historical evidence of a former clay pit on the site exists, although no records of disposal of hazardous materials into the pit exists. Photographic evidence indicates the site was in use as a recreational field by 1952.

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

1. "Historical Analysis, Alewife Brook Area, Cambridge, MA, EPA (1981), NUS/FIT Project Files.
2. Survey of Architectural History of Cambridge, Northwest Cambridge, Cambridge Historical Commission, (1977).